SAMPLING AND ANALYSIS PLAN FORMS
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SAMPLING AND ANALYSIS PLAN

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For EPA use:

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Region IX, Quality Assurance Program

Policy and Management Division

1.0 INTRODUCTION

1.1 SITE NAME:

1.2 SITE LOCATION:

1.3 RESPONSIBLE AGENCY:

1.4 PROJECT ORGANIZATION

Title/Responsibility	Name
Project Manager	
Quality Assurance Officer	
Field Team Leader	
Sample Coordinator	
Laboratory Manager	
Data Manager	
Other	

1.5 STATEMENT OF THE SPECIFIC PROBLEM:

2.0 BACKGROUND

2.1 LOCATION

2.1.1 Geographic Location:

(See Figure 2.1)

_____
_____
_____
_____
_____

2.1.2 Specific Location:

(see Figure 2.2)

2.2 GEOLOGICAL INFORMATION (Groundwater Sampling Only):

_____
_____
_____
_____
_____

2.3 ENVIRONMENTAL AND/OR HUMAN IMPACT:

_____
_____
_____
_____
_____

2.4 PREVIOUS INVESTIGATIONS (If Applicable)

_____
_____
_____
_____
_____
_____
_____
_____(Attach reports or summary tables and list as appendices)

Figure 2-1 Geographic Location (Not included)

Figure 2-1 Area Map (Not included)

Figure 2-2 Site Map (Not included)

2.5 REGULATORY INVOLVEMENT

3.0 PROJECT DATA QUALITY OBJECTIVES

3.1 DATA USES

3.2 PROJECT TASK

3.3 EXPECTED DATA QUALITY

1) Contaminants of concern

2) Expected concentrations

3) Action levels (with source)

4) Appropriate analytical methods

5) Sampling design method

6) Number of quality control samples

3.4 DATA QUALITY INDICATORS

Table 3.1 Data Quality Indicators

Analyte or Parameter	Matrix	Action Level	Detection Limit/ Instrument Resolution	Accuracy (Per cent recovery)*	Precision (RPD)*	Per cent Complete

*Relative Percent Difference

Representativeness

Comparability

3.5 DATA MANAGEMENT

3.6 ASSESSMENT OVERSIGHT

4.0 SAMPLING DESIGN

4.1 SOIL

4.1.1 Sampling Locations

4.1.2 Analytes of Concern

4.2 SEDIMENT

4.2.1 Sampling Locations

4.2.2 Analytes of Concern

4.3 WATER

4.3.1 Sampling Locations

4.3.2 Analytes of Concern

4.4 OTHER MEDIUM (MATRIX)

4.4.1 Sampling Locations

4.4.2 Analytes of Concern

4.5 SAMPLE IDENTIFICATION

Table 4.1 Sample Identification

Sample I.D. Number*	Location	Matrix	Analyte

*Following the example of sample identification in Section 4.5, each sample at depth should be listed separately.

4.6 SAMPLE PRESERVATION AND HOLDING CONDITIONS

TABLE 4.2

Sample Containers*, Preservation and Holding Times

for Chemical Analysis

Chemical	Matrix	Preservation	Holding Time

Note:*For laboratory quality control samples, collect a double volume of waters.

TABLE 4.3

Sample Containers, Preservation and Holding Times for RCRA Analysis[#]

Chemical	Matrix	Presevation	Holding Time

Notes:*For laboratory quality control samples, collect a double volume of waters.

[#]RCRA analytical methods do not include total petroleum hydrocarbons (TPH) and total recoverable petroleum hydrocarbons (TRPH).

TABLE 4.4

Sample Containers, Volume and Holding Times for Bacteriological Analysis

Analysis	Container	Sample Volume	Holding Time

5.0 REQUEST FOR ANALYSES

5.1 REQUEST FOR ANALYSES TABLES

Request for Analyses (RFA) Tables for _____ are found on the following pages.

5.2 ANALYSES NARRATIVE

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Table 5--1

Request for Analytical Services

Matrix = Soil

Table 5--2

Request for Analytical Services

Matrix = Sediment

Table 5--3

Request for Analytical Services

Matrix = Water

Table 5--4

Request for Analytical Services

Matrix = Other

6.0 METHODS AND PROCEDURES

6.1 FIELD HEALTH AND SAFETY PROCEDURES

6.2 FIELD PROCEDURES

6.2.1 Equipment

6.2.1.1 Equipment Calibration and Maintenance

6.2.2 Field Sampling Procedures

6.2.3 FIELD NOTES

6.2.3.1 Field Logbooks

_____
_____
_____
_____

Table 6.1 Field Data Sheet

FIELD NOTES

Date:			
Time:	**Location:**		**Sampler's Name:**
Site sketch:			
PH:	**Temperature:**	**Conductivity:**	
Field Observations:			

Sample type/I.D.	**Equipment used**	**Description**	**Preservation**
Comments:			

6.2.3.2 Photographs

_____
_____
_____
_____

6.3 SOIL SAMPLING PROCEDURES

6.3.1 Surface Soil Sampling

6.3.2 Subsurface Soil Sampling

6.4 SEDIMENT SAMPLING PROCEDURES

6.5 SURFACE WATER SAMPLING PROCEDURES

6.5.1 Chemical Analysis Sample Collection

6.5.1.1 Sample Bottles

6.5.1.2 Sampling Procedure

6.5.2 Bacteriological Sample Collection

6.5.2.1 Sample Bottles

6.5.2.2 Sampling Procedure

6.6 GROUNDWATER SAMPLING PROCEDURES

6.6.1 Water Level Measurements

6.6.2 Purging

6.6.3 Well Sampling

6.7 PROCEDURES FOR OTHER MATRICES

6.8 DECONTAMINATION PROCEDURES

7.0 DISPOSAL OF RESIDUAL MATERIALS

8.0 SAMPLE DOCUMENTATION AND SHIPMENT

8.1 BOTTLES AND PRESERVATIVES

8.1.1 Soil Samples

8.1.2 Sediment Samples

8.1.3 Water Samples

8.1.4 Samples of Other Matrices

8.2 SAMPLE CHAIN--OF--CUSTODY FORMS AND CUSTODY SEALS

8.3 LABELING, PACKAGING, AND SHIPMENT

9.0 QUALITY CONTROL

9.1 FIELD QUALITY CONTROL SAMPLES

9.1.1 Equipment Blanks

9.1.2 Field Blanks

9.1.3 Trip Blanks

9.1.4 Field Duplicate Samples

9.2 Laboratory Quality Control Samples

9.3 FIELD VARIANCES